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WE CLAIM:

1. An anode assembly by which a solution can be supplied to a surface of a substrate comprising:

a housing defining an internal housing volume into which the solution can flow,

a closure for said internal housing volume through which the solution can be discharged from said internal housing volume towards the surface of said substrate, and

a filter by which said internal housing volume can be divided into a first chamber and a second chamber located between the first chamber and the closure,

wherein, during supply of said solution to said surface, a flow of the solution into said second chamber occurs at a higher rate than a flow of the solution into said first chamber, and said flows are blended in said second chamber.

2. The anode assembly of claim 1, wherein said housing includes at least one primary flow channel through which the solution can pass directly into said second chamber and at least one secondary flow channel through which the solution can pass directly into said first chamber.

3. The anode assembly of claim 2, wherein said primary and secondary flow channels are independent of each other.

4. The anode assembly of claim 2, wherein said secondary

flow channel taps into said primary flow channel.

5. The anode assembly of claim 4, wherein said secondary flow channel is adapted to divert a portion of the solution which flows through said primary flow channel to said first chamber.

6. The anode assembly of claim 1, wherein said closure is a plate which can cover said internal housing volume.

7. The anode assembly of claim 6, and further comprising a pad through which said solution can flow overlying said plate.

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8. The anode assembly of claim 1, and further comprising a second filter which can be provided between said second chamber and said closure.

9. The anode assembly of claim 1, wherein said substrate comprises a semiconductor.

10. The anode assembly of claim 1, and further comprising a drain by which sludge can be removed from said first chamber.

11. The anode assembly of claim 1, and further comprising an external filter which can pre-filter the solution before it enters the housing.

12. The anode assembly of claim 11, wherein said housing is an upper housing, and further comprising a lower housing, to which said external filter can be mounted, adapted to receive at least part of said upper housing in a volume defined thereby.

13. The anode assembly of claim 12, wherein a fluid inlet chamber is defined between said lower housing and said upper housing when the lower housing receives said at least part of said upper housing.

14. The anode assembly of claim 1, and further comprising an anode which can be received within said first chamber.

15. The anode assembly of claim 14, wherein said anode is a soluble anode.

16. The anode assembly of claim 1, wherein said solution is an electrolyte solution out of which a conductive film can be deposited onto said surface of the substrate.

17. The anode assembly of claim 1, wherein at least one orifice is used to remove air bubbles in the first chamber.

18. The anode assembly of claim 1, wherein at least one orifice is used to remove air bubbles in the second chamber.

19. The anode assembly of claim 1, wherein at least one orifice in the first chamber and at least one orifice in the second chamber are used to de-bubble the solution or prevent air bubble accumulation in the anode assembly.

20. The anode assembly of claim 19, wherein the air bubble accumulation is reduced by way of a controlled leak between flanges.

21. A process of supplying a solution to a surface of a substrate received in an anode assembly comprising:

providing a housing having an internal volume divided by a filter into a first chamber and a second chamber located between the first chamber and said surface,

supplying the solution to said housing,

dividing the solution supplied to the housing into one flow passing directly into said second chamber and another flow passing into said second chamber through said first chamber,

blending the flows together in said second chamber, and

discharging said solution from said housing towards said surface.

22. The process of claim 21, wherein said solution is an electrolyte solution out of which a conductive film can be deposited onto said surface of the substrate.

23. The process of claim 21, wherein an anode is received within said first chamber.

24. The process of claim 23, wherein said anode is a soluble anode.

25. The process of claim 21, wherein at least one orifice is used to remove air bubbles in the first chamber.

26. The process of claim 21, wherein at least one orifice is used to remove air bubbles in the second chamber.

27. The process of claim 21, wherein at least one orifice in the first chamber and at least one orifice in the second chamber are used to debubble the solution or prevent air bubble accumulation in the anode assembly.

28. The process of claim 27, wherein the air bubble accumulation is reduced by way of a controlled leak between flanges.

29. The process of claim 21, wherein said substrate includes a semiconductor.